PUBLIC WORKS
EVERETT

April 21, 2016

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P.O. Box 4760
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RE: Ecology's Proposed Water Quality Standards for Protecting Human Health (173-201A WAC)

The City of Everett thanks Ecology for the reasonable approach taken for mercury, arsenic and PCBs in its proposed rule. We recognize that with the exception of arsenic, the new human health criteria are more protective, or equally protective when compared to the currently applicable criteria. We find the reasons for replacing the National Toxics Rule (NTR) arsenic criterion with the drinking water MCL are well stated by Ecology and are very compelling. If it's good enough to drink, it should be good enough to discharge into the natural environment.

We are sorry that some groups and EPA Region X have essentially forced Ecology to switch to 10-6 risk level (compared to the earlier proposed 10-5 risk level) based on 175 g/day fish consumption. The earlier proposal was well justified, complied with EPA guidance and reflects the City of Everett's position. The issue was politically charged and public opinion easily influenced by sound-bites rather than comprehensive understanding.

Part of the problem is that it is incorrect to assign a single risk value to the criteria. For cancer risk, the criteria represent a range of risks covering a range of fish consumption values. This is true for the current NTR criteria, EPA's National Recommended Water Quality Criteria, EPA's proposed criteria for Washington, the state's earlier proposed new criteria, and the state's current proposed criteria.

Rather than saying the criteria are based on a one in a million cancer risk rate, the water quality standards need to state that the criteria provide a range of protection for a wide range of fish consumption rates. In the proposed rule Ecology should provide this explanation in order to prevent confusion in the future.

We agree with the use of a Relative Source Contribution (RSC) of 1, and agree with Ecology's wanting to keep the criteria relevant to water exposures and the associated Clean Water Act (CWA) tools. We are pleased that Ecology eloquently voiced this position in their comments to EPA concerning EPA's proposed revisions to EPA's national recommended human health water quality criteria.

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We agree that for some toxics, CWA tools are not able to address significant sources, and that alternative tools, such as Chemical Action Plans (CAPs) are more appropriate. Such plans can, and have in the past, lead to some bans, and also to some push for alternative assessments, and that is appropriate. In the past, the bans have been imposed by the legislature. The Governor linked the earlier proposed rule- making to a legislative proposal to address toxics. We disagreed with any requirement that the two activities must be linked. The legislative proposal did not pass, and the earlier rule was pulled and this new proposed rule is now available for review and comment. This proposed rule, like the earlier proposed rule, is well thought out. The combined process (earlier proposed rule and this proposed rule) was extensive and open, and the decisions made are well explained.

We are concerned about the possible impacts of these proposed human health criteria in the situation where newer test methods come along that then find some substances that were not known to be exceeding criteria in receiving waters. This is the situation that could suddenly drive end-of-pipe effluent limits with no dilution benefit, while the CWA regulatory tools might be ineffective because of non-CWA regulated sources (much like for PCBs). The economic analysis acknowledged there could be possible future impacts associated with new methods, but that there was no way to quantify that now. The effects of revised analytical methods is well known for PCBs. There are many other criteria set well below currently approved analytical methods. Consider benzidine, with a freshwater HHC of 0.00002 ug/l and a method detection limit of 24 ug/l. We have no data indicating problems in receiving waters due to benzidine, but given a 6 order of magnitude difference between the HHC and the analytical methods, we simply have no idea whether benzidine is a potential future compliance problem.

To protect against this concern, we strongly recommend that the applicable test methods for each of these toxicants be spelled out and adopted in a table in this rule. The applicable methods are already known and identified by DOE in Appendix B in the DEIS accompanying this rule-making. The applicable test methods could be presented either as 1) a table immediately following table 240, 2) another column in table 240, or it could go into WAC 173-201A-260(h). In either event, WAC 173-201A-260(h) needs to be changed to preclude imposition of new methods approved by EPA before the state and permittees have had a chance to review and evaluate them, and adopt the methods into WAC173-201A through rule-making. With this strategy, the economic analysis would not have to consider the effect of future test methods, as those would be considered when such methods were adopted into the rule.

We appreciate that the carcinogenic PAH criteria have recognized that the carcinogenicity varies and that they are not all equal to Benzo(a)pyrene. This was a needed change we had asked for earlier.

We believe that there is an additional implementation tool that needs to be specifically recognized in the rule. That is the use of Chemical Action Plans (CAPs) in lieu of a TMDL. The TMDL approach is limited to CWA tools focused on NPDES permitted discharges. Sometimes, that isn't going to accomplish much, while it could impose great costs and liability if unable to comply. The TMDL imposed PCB limit for the City of Walla Walla of 1 gram per year is an example of an ineffective action, as the POTW loadings account for less than 2% of the total. A CAP approach can recognize the bigger picture, identify what is feasible to do and also identify what is not feasible. The mercury CAP and the proposed PCB CAP are good examples. CAPs such as for mercury and PCBs should count in the 303(d) process as a Category 4(b) action. There should be a new section in the rule that acknowledges that non-TMDL implementation

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tools should be allowed and encouraged, especially where traditional TMDL and CWA tools will not be very useful.

The following pages include comments tied to specific sections in the regulation and the supporting documents.

Thank you for the opportunity to participate meaningfully in this process.

Sincerely,

James W. Miller, P.E.
Engineering Superintendent

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Specific Comments re regulatory language.

WAC 173-201A-240(5)(b) human health protection. Delete the third sentence which says:

> *"The human health criteria in the tables were calculated using a fish consumption rate of 175 g/day."*

And replace it with the following:

> *"The human health criteria for non-carcinogens are based on a hazard quotient of 1 and a fish consumption rate of 175 grams/day (11.6 pounds/month). The human health criteria for carcinogens covers a range of fish consumption rates and associated risk levels such that 17.5 grams/day (1.2 pounds/month) is protected at one in ten million risk level, 175 grams/day (11.6 pounds/month) at one in a million risk level, and 1750 grams/day (116 pounds/month) at one in a hundred thousand risk level."*

The reason for this recommendation is to better convey information about the criteria.

Table 240. Acute and chronic freshwater cadmium criteria have a reference to footnote "I". There is no footnote "I" at the end of the table. Either remove the reference, or identify the reference.

Table 240. Acute marine copper criteria should have listed footnote "b" instead of "c".

Table 240. There are 17 compounds included on the list for which there are no criteria. These compounds should be removed, as including them on the list serves no purpose. [Or, if there is a purpose, then there should be a footnote applied to each compound explaining the purpose for including it in the table.]

Table 240, footnote "dd". Remove the second sentence which pertains to cyanide. Footnote "dd" is not used for cyanide. Footnote "ee" is used for cyanide and has the same observation as the sentence in "dd", which is appropriate.

Table 240, footnote "B". Change to read,

> *"This criterion was calculated based on an additional lifetime cancer risk of one in one million (1 x 10-6) risk level for an average fish consumption rate of 175 grams/day. The criterion is protective over a range of fish consumption such that 17.5 grams/day is protected at one in ten million (1 x 10-7) risk level and 1,750 grams/day is protected at one in one hundred thousand (1 x 10-5) risk level."*

This better conveys that the criteria relate to a range of risk levels for a range of fish consumption rates. (See comment re WAC 173-201A-240(5)(b) above.)

Table 240, footnote "E". Add *"....which is a 2.3 x 10-5 risk level."* at the end of the last sentence.

Table 240, footnote "G". The footnote pertains to the mercury criteria. Consider adding a sentence noting

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"The chronic aquatic life criteria are more stringent, are actually based on human health (see footnote "s") and are more protective of human health than the criteria in 40 CFR 131.36."

WAC 173-201A-420(3)(f)(iii) says that

"If the variance is for a water body, or stretch of water, the following information must also be provided to the department." ..... "(iii) Best management practices for nonpermitted sources that meet the requirements of chapter 90.48 RCW."

What does this mean? Is atmospheric transport and deposition included? Is groundwater included? What about bacteria contributions from wildlife? How is an entity initiating a variance request supposed to provide this information? It clearly goes beyond what the entity has operational control over. Perhaps this is where a Chemical Action Plan could be referred to, if the state has prepared one for the parameter of concern.

Specific comments re DEIS

Page 26, Comparison of alternatives – Arsenic, Table describing Usability

The Note in the table says that Alternative 2 criteria concentrations are exceeded frequently in the state, but less frequently than Alternatives 1 and 2.

Assuming the statement is intended to pertain to surface waters, it is incorrect to say that the Alternative 2 criteria (10 ug/l) is exceeded frequently. It is not. On page 25 the DEIS says that in Washington, natural levels of inorganic arsenic in surface waters, based on discrete samples, may infrequently exceed the SDWA MCL of 10 ug/l. In actuality, exceedances will be very rare and where found may have just been because Ecology failed to note that they were less than a detection level.

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